

What is claimed is:

1. An electrode and getter structure for gas discharge device that includes a frame having a cavity therein that contains a gain medium and an electrode bore extending from a surface of the frame to the cavity, comprising:

5 a metalization layer formed on the surface of the frame, the metalization layer including an electrode that is adjacent the electrode bore;

a getter well mounted to the frame around the electrode bore; and

a getter mounted in the getter well spaced apart from the frame.

10 2. The electrode and getter structure of claim 1 wherein the metalization layer extends around the electrode bore and the getter well is sealed to the metalization layer.

15 3. The electrode and getter structure of claim 2 wherein the metalization layer includes an electrical contact arranged so that an electrical signal may be applied to the electrode.

4. The electrode and getter structure of claim 1 wherein the getter well comprises a hollow glass cylinder having a closed end and an open end mounted to the metalization layer.

20 5. The electrode and getter structure of claim 4 further comprising a spring retained in the getter well by elastic forces in the spring with the getter being attached to the spring and aligned with the electrode bore.

25 6. An electrode and getter structure for a gas discharge device that includes a frame having a cavity therein that contains a gain medium and an electrode bore extending from a surface of the frame to the cavity, comprising:

a metalization layer formed on the surface of the frame, the metalization layer including:

a ring that extends around the electrode bore and is spaced  
apart therefrom;  
an electrode formed in the metalization layer to extend inward  
in the ring to a location adjacent the electrode bore;  
5 and  
an electrical contact in the metalization layer and arranged to  
extend away from the ring;  
a getter well sealed to the metalization layer;  
a spring mounted in the getter well such that elastic forces in the  
10 spring retain it in a selected position; and  
a getter mounted in the getter well spaced apart from the frame and  
aligned with the electrode bore.

7. A method for forming an electrode and getter structure for a  
gas discharge device that includes a frame having a cavity therein that contains  
15 a gain medium and an electrode bore extending from a surface of the frame to  
the cavity, comprising the steps of:

forming a metalization layer on the surface of the frame, the  
metalization layer being formed to include an electrode that is  
adjacent the electrode bore;  
20 sealing a getter well to the frame around the electrode bore; and  
mounting a getter in the getter well spaced apart from the frame.

8. The method of claim 7 including the steps of forming the  
metalization layer to extend around the electrode bore; and  
securing the getter well to the metalization layer.

25 9. The method of claim 8 including the step of forming the  
metalization layer to include an electrical contact arranged so that an electrical  
signal may be applied to the electrode.

10. The method of claim 7 including the step of forming the getter well to comprise a hollow glass cylinder having a closed end and an open end mounted to the metalization layer.

5 11. The method of claim 10 further comprising the steps of:  
attaching the getter to a spring; and  
mounting the spring in the getter well.

12. A method for forming a gas discharge device that includes a frame having a cavity therein that contains a gain medium and an electrode bore extending from a surface of the frame to the cavity, comprising:  
10 forming a metalization layer as a ring that extends around the electrode bore and is spaced apart therefrom on the surface of the frame:  
forming an electrode in the metalization layer that extends inward in the ring to a location adjacent the electrode bore; and  
15 forming an electrical contact in the metalization layer extending away from the ring;  
providing a getter well;  
mounting a getter to a spring;  
mounting the spring in the getter well that elastic forces in the spring  
20 retain it in a selected position; and  
sealing the getter well to the metalization layer.